

FLAT RHEOLOGY DRILLING FLUID

A drilling fluid an oleaginous fluid that forms the continuous phase; a non-oleaginous fluid, which is the discontinuous phase; a primary emulsifier in sufficient concentration to stabilize the invert emulsion; and a rheology modifier, which serves to moderate the rheology change across a temperature range of 40 to 150 C. The rheology modifier may be a dimer poly-carboxylic C₁₂ to C₂₂ fatty acid, trimer poly-carboxylic C₁₂ to C₂₂ fatty acid, tetramer poly-carboxylic C₁₂ to C₂₂ fatty acid, mixtures of these acids, or a polyamide wherein the polyamide is the condensation reaction product of a C₁₂-C₂₂ fatty acid and a polyamine selected from the group consisting of diethylenetriamine, triethylenetetramine; and pentaethylenetetramine. The drilling fluid preferably includes a weighting agent or bridging agent which may be selected from galena, hematite, magnetite, iron oxides, illmenite, barite, siderite, celestite, dolomite, calcite as well as combinations and mixtures of these and similar compounds. Optionally organophillic clay, fluid loss agents, alkali reserve materials, and other conventional invert emulsion drilling fluid components may be added to the drilling fluid.